

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Original) An isolated polypeptide having an amino acid sequence selected from the group consisting of;

- (a) an amino acid sequence of SEQ. ID. NO. 2, and
- (b) an amino acid sequence having at least 70% identity to SEQ. ID. NO. 2.

Claim 2. (Currently Amended) The polypeptide of claim 1, wherein the polypeptide (having the amino acid sequence of SEQ. ID. NO. 2) contains aminotransferase class I and II domain at C-terminal.

Claim 3. (Original) An isolated polynucleotide encoding the polypeptide of claim 1.

Claim 4. (Original) The polynucleotide of claim 3, wherein the polynucleotide comprises a nucleotide sequence of SEQ. ID. NO. 1.

Claim 5. (Original) An expression vector comprising the polynucleotide of claim 3.

Claim 6. (Original) The expression vector of claim 5, wherein the expression vector comprises the polynucleotide having a nucleotide sequence of SEQ. ID. NO. 1.

Claim 7. (Original) A cell comprising the expression vector of claim 5.

Claim 8. (Original) A transgenic plant comprising the expression vector of claim 5.

Claim 9. (Original) A seed comprising the expression vector of claim 5.

Claim 10. (Original) An antisense polynucleotide complementary to the polynucleotide of claim 3.

Claim 11. (Original) The antisense polynucleotide of claim 10, wherein the antisense polynucleotide is complementary to the polynucleotide having a nucleotide sequence of SEQ. ID. NO. 1.

Claim 12. (Original) An expression vector comprising the antisense polynucleotide of claim 10.

Claim 13. (Currently Amended) The expression vector of claim 12, wherein the expression vector comprises ~~the an antisense polynucleotide of claim 11~~, wherein the antisense polynucleotide is complementary to the polynucleotide having a nucleotide sequence of SEQ. ID. NO. 1.

Claim 14. (Original) A cell comprising the expression vector of claim 12.

Claim 15. (Original) A transgenic plant comprising the expression vector of claim 12.

Claim 16. (Original) A seed comprising the expression vector of claim 12.

Claim 17. (Original) A method for inducing plant growth inhibition by suppressing the expression or function of the polypeptide of claim 1, resulting in inhibition of biotin biosynthesis.

Claim 18. (Currently Amended) The method of claim 17, wherein the suppression of the expression of the polypeptide is achieved by any method selected from the group consisting of introduction of ~~the an antisense polynucleotide of claim 10~~, gene deletion, gene insertion, T-DNA introduction, homologous recombination and transposon tagging, wherein the antisense polynucleotide is complementary to an isolated polynucleotide encoding a polypeptide, and wherein the polypeptide has an amino acid sequence selected from the group consisting of;

(a) an amino acid sequence of SEQ. ID. NO. 2; and

(b) an amino acid sequence having at least 70% identity to SEQ. ID. NO. 2.

Claim 19. (Original) A method for identifying herbicidal compounds that inhibit the expression or function of the polypeptide of claim 1, comprising the steps of;

- (a) combining a polypeptide of claim 1 with the compounds to be tested for the ability to inhibit the expression or the function of the polypeptide under conditions conducive to inhibition;
- (b) selecting the identified compounds to inhibit the expression or function of the polypeptide in step (a);
- (c) applying the said compounds selected in step (b) to a plant to test for herbicidal activity; and
- (d) selecting the identified compounds to have herbicidal activity in step (c).